In the Claims

Please **cancel claims 1-28** without prejudice.

Please **add claims 29-56** as follows:

29. (New) A method of treating water, comprising:

a. contacting the water with at least one inorganic powder reagent with high specific surface area for reducing the content of organic matter in the water; and

b. a membrane separation step including treating blow off products derived from the membrane separation step by separating the blow off products into at least two fractions:

i. a first fraction containing a majority of the inorganic powder reagent in a first stream of water;

ii. a second fraction containing a majority of organic matter not absorbed by the inorganic powder reagent rejected by the membrane separation step and concentrated in the blow off products in a second stream of water having a flow rate that exceeds the first stream of water; and

iii. wherein the first fraction containing a majority of the inorganic powder reagent is rejuvenated in the water on the upstream side of where the water is treated with the inorganic powder reagent.

30. (New) The method of treating water of claim 29 wherein the powder reagent is powder activated carbon (PAC).

31. (New) The method of claim 29 including a gravity separation step that takes place before the water is brought into contact with the inorganic powder reagent.

32. (New) The method of claim 31 wherein the gravity separation step is preceded by a flocculation or coagulation step.

33. (New) The method of claim 29 wherein the inorganic powder reagent is used as a support for a nitrifying biomass, and air is injected during the step in which water is brought into contact with the inorganic powder reagent.

34. (New) The method of treating water of claim 29 wherein the blow off products include a hydraulic separation step.

35. (New) The method of treating water of claim 34 wherein the separation step utilizes at least one hydrocyclone.

36. (New) The method of treating water of claim 29 wherein the blow off products derived from the membrane separation step are collected continuously.

37. (New) The method of treating water of claim 29 wherein said blow off products derived from the membrane separation step are collected periodically.

38. (New) The method of treating water of claim 37 wherein the intervals at which the blow off products are collected depend on the concentration of the inorganic powder reagent in the water is brought into contact with the inorganic powder reagent.

39. (New) The method of treating water of claim 29 wherein the method comprises at least one step of extracting the used inorganic powder reagent.

40. (New) The method of treating water of claim 39 wherein said extraction step occurs on the upstream side of the membrane separation step.

41. (New) The method of treating water of claim 29 wherein said membrane separation step is achieved using pressurized membranes.

42. (New) The method of treating water of claim 29 wherein said membrane separation step is performed using immersed membranes.

43. (New) The method of treating water of claim 29 wherein the second fraction is evacuated.

44. (New) The method of treating water of claim 32 wherein the second fraction is rejuvenated in the water to be treated on the upstream side of said gravity separation step.

45. (New) A system for treating water comprising:

a. at least one chamber for mixing the water with an inorganic powder reagent for reducing the content of organic matter in the water;

b. at least one membrane separation unit comprising at least one hydraulic separation unit and wherein the hydraulic separation unit separates blow off products derived from the membrane separation unit into at least two fractions: a first fraction containing a majority of the inorganic powder reagent in a first water stream; a second fraction containing a majority of inorganic matter not absorbed by the inorganic powder reagent rejected by the membrane separation unit and concentrated in the blow off products in a second water stream; and a connector for permitting the first fraction to be conveyed to the chamber where the water is mixed with the inorganic powder reagent.

46. (New) The system of claim 45 comprising a gravity separation unit installed on the upstream side of the chamber where the water is mixed with the inorganic powder reagent.

47. (New) The system of claim 46 including a coagulation and/or flocculation unit on the upstream side of the gravity separation unit.

48. (New) The system of claim 45 further comprising and air injector for maintaining the inorganic powder reagent in suspension and an oxygen supply inlet for supplying oxygen for biologically treating the water.

49. (New) The system of claim 45 wherein the hydraulic separation unit comprises at least one hydrocyclone.

50. (New) The system of claim 45 wherein said membrane separation unit comprises at least one filtration tank having at least one immersed membrane.

51. (New) The system of claim 45 wherein the membrane separation unit comprises at least one filtration tank having at least one pressurized membrane.

52. (New) The system of claim 45 including a tank for the storage of the blow off products derived from the membrane separation unit.

53. (New) The system of claim 45 comprising means for extracting the used inorganic powder reagent.

54. (New) The system of claim 53 wherein the extraction means is provided on a conveyor means or in conjunction with the chamber where the water is mixed with the inorganic powder reagent.

55. (New) The system of claim 45 including means for evacuating the second fraction.

56. (New) The system of claim 46 including means for conveying the second fraction to the gravity separation unit.

57. (New) The method of claim 45 wherein the flow rate of the second stream of water exceeds the flow rate of the first stream of water.

58. (New) The method of claim 57 wherein the flow rate of the second stream of water exceeds the flow rate of the first stream of water by four to twenty times.